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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,548	11/24/2003	Tatsumi Tsutsui	19546.0001	1263

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SWIDLER BERLIN LLP
3000 K STREET, NW
BOX IP
WASHINGTON, DC 20007

EXAMINER
SUN, SCOTT C

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/718,548	TSUTSUI, TATSUMI
	Examiner	Art Unit	
	Scott Sun	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 September 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

    4a) Of the above claim(s) *14-17 and 31-34* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 18-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 November 2003</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election without traverse of claims 1-13, 18-30 in the reply filed on

9/29/2005 is acknowledged.

2.   Claims 14-17, 31-34 are withdrawn from further consideration pursuant to 37

CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable

generic or linking claim. Election was made **without** traverse in the reply filed on

9/29/2005.

Drawings

3.   Figures 8-10 should be designated by a legend such as --Prior Art-- because

only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Objections

4.   Claim 18 is objected to because of the following informality: applicant recites "in

10 response" where "in response" is expected. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention. .

6.   Claims 1-13, 18-30 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

7.   Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the

steps. See MPEP § 2172.01. The omitted steps are: recognizing an error has occurred

by the device in response to receiving the second packet from the host apparatus. The

examiner asserts that without determining that the response from host is invalid, the

device and host would participate in an infinite loop of exchanging stall and clear feature

commands. As stated by the claims, the device simply responds to the second packet

sent by host, namely a clear feature packet, by sending a stall packet. In the USB

protocol, this will simply cause the host to send another clear feature command. This

will cause the claimed invention, without the essential step cited by the examiner above,

to send another stall packet. Which does not serve the purpose as disclosed in the

specification of the invention. In particular, the examiner believes the "CF detecting portion" 19a in figure 1 and figure 7 disclosed by the applicant provide the essential step omitted in the claims. The only embodiment without the "CF detecting" portion, the second embodiment, does not fit the description of the claims. For example, in the second embodiment, an error is generating by the device and not erroneously recognized by the host. Therefore, the examiner asserts that the claims are directed towards embodiments 1 or 3, in which the function performed by "CF detecting circuit" is essential but omitted.

8.   Claims 18-30 recites a device instead of a method. They are rejected using the same arguments as above, for missing essential element instead of step.

9.   The following rejections are made based on the examiner's best interpretation of the claims in light of the 35 USC 112 rejections above.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11.   Claims 8 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Universal Serial Bus Mass Storage Class Bulk-only Transport 1.0 (USB spec 1.0).

12.   USB spec 1.0 discloses a method/device of communicating data between a

device and a host apparatus through a USB interface comprising the steps of:

transmitting a first request (CBW) for data from host apparatus to the device (page 20,

section 6.7.2; host requirement 1 and 2); receiving a first packet (STALL) from the

device at the host apparatus in response to the first request for data (page 20, device

requirement 2); transmitting a second request for data from the host apparatus to the

device, in response to receiving the first packet from the device (page 20, host

requirement 3 and 4); receiving a second packet (CSW) from the device at the host

apparatus in response to the second request for data. The examiner asserts that the

above steps are part of the basic USB handshaking communication protocol, which is

well known in the art. More details of each packet: CBW, STALL, and CSW can be

found in other sections of the above cited specification (paper copy attached) and also

at USB developers' website at www.usb.org.

Claim Rejections - 35 USC § 103

13.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

14.   Claims 1-7, 9-13, 18-24, 26-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over USB spec 1.0 in view of applicant's teachings of prior art.

15.   Regarding claims 1 and 18 USB spec 1.0 discloses a method/device of

communicating data between a device and a host apparatus through a USB interface

comprising the steps of: transmitting a first packet (STALL) from the device to the host

apparatus, the first packet being recognized by the host apparatus as a first type of

packet (STALL, page 20, device requirement 2, case 4 or 5); receiving a second packet

from the host apparatus at the device in response to the first packet (page 20, host

requirement 3 and 4); transmitting a third packet (STALL) from the device to the host

apparatus, the third packet being the first type of packet (STALL, page 20, device

requirement 2, case 4 or 5; host requirement 5). The examiner asserts that according

to the USB specification, if a STALL packet is received by a host, the host responds

with a clear feature packet to request for CSW, the device can then again send another

STALL packet, causing the host to resend request for CSW.

        USB spec does not disclose explicitly erroneously recognizing a packet as a first

type. However, applicant's disclosure of prior art teaches the host can erroneously

recognize a packet as a first type (figure 10). Applicant's disclosed prior art and USB

spec 1.0 are from same field of USB data transferring, specifically of Bulk-only

transport. Therefore a person of ordinary skill in the art at the time of invention can

readily recognize that the method taught in USB spec 1.0 can be applied in the case

when an erroneous recognition occurs (page 17, section 6.4, device error handling).

16.   Regarding claims 2 and 19, USB spec 1.0 and applicant's teaching of prior art discloses claims 1, and USB spec 1.0 further discloses wherein the first type of packet is a STALL packet (STALL, page 20, device requirement 2, case 4 or 5).

17.   Regarding claims 3 and 20, USB spec 1.0 and applicant's teaching of prior art discloses claims 2 and 19, and USB spec 1.0 further discloses wherein the second packet is a clear feature command packet (page 20, host requirement 3 and 4).

18.   Regarding claims 4 and 21, USB spec 1.0 and applicant's teaching of prior art discloses claims 3 and 20, and USB spec 1.0 further discloses wherein the method further comprises the step of: receiving a fourth packet from the host apparatus at the device (page 20, host requirement 5), the fourth packet being a clear feature command packet, the fourth packet transmitted from the host apparatus in response to receiving the third packet from the device (host requirement 5, "on a STALL condition receiving the CSW").

19.   Regarding claims 5 and 22, USB spec 1.0 and applicant's teaching of prior art discloses claims 4 and 21, and USB spec 1.0 further discloses wherein the method further comprises the step of: transmitting status information (CSW) from the device to the host apparatus, in response to receiving the fourth packet from the host apparatus (page 20, device requirement 3).

20.   Regarding claims 6 and 23, USB spec 1.0 and applicant's teaching of prior art discloses claims 5 and 22, and applicant's teaching of prior art further discloses wherein a type of the first packet transmitted from the device is an ACK packet or a NAK packet (figure 10).

21.   Regarding claims 7 and 24, USB spec 1.0 and applicant's teaching of prior art

discloses claims 6 and 23, and USB spec 1.0 further discloses wherein the data

communications is performed using USB MASS Storage Class Bulk Only Mode (USB

Spec 1.0 page 5, in section titled "scope").

22.   Regarding claims 9 and 26, USB spec 1.0 discloses the method of claim 8

(device of claim 25), but does not disclose expressly erroneously recognizing a packet

as a STALL Packet. However, applicant's teaching of prior art discloses the first is

transmitted from the device as an ACK packet or a NAK packet, but the host apparatus

erroneously recognizes the first packet as a STALL packet (figure 10). The examiner

asserts that inventions in claims 9 and 26 are similar to those of claims 1 and 18.

Specifically, an ACK or NAK packet is erroneously recognized as a STALL packet. The

same process disclosed by USB spec applies. See examiner's arguments for rejection

of claims 1 and 18.

23.   Regarding claims 10-13, and 27-28, the examiner finds them substantially similar

to claims 2, 4-6, and 19, 21-24. Therefore the same arguments are used in rejection of

these claims.

Conclusion

24.   Other publications are cited to further show the state of the art with respect to

USB command packet processing. Refer to form 892, "Notice of References Cited", for

a complete list of relevant prior arts cited by the examiner.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Scott Sun whose telephone number is (571) 272-2675.

The examiner can normally be reached on M-F, 10:30am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SS

11/22/2005

KIM HUYNH
PRIMARY EXAMINER

11/23/05